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EXAMINER	
MITCHELL, LAURA MCGILLEM	
ART UNIT	PAPER NUMBER
1636	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/677,777	**Applicant(s)** TOVEY ET AL.
	Examiner LAURA M. MITCHELL	**Art Unit** 1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2007*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-2,4-60 and 70-75* is/are pending in the application.
  4a) Of the above claim(s) *35-60* is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1,2,4-34 and 70-75* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date *12/17/2008*.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

It is noted that claims 1-2, 4, 7-9 have been amended, claims 3 and 61-69 have been cancelled, and claims 35-60 are withdrawn in the response filed 12/17/2007. Claims 1-2, 4-34 and 70-75 are under examination.

It is noted that Applicants have submitted a Declaration by Allen Yun under 37 CFR 1.132 and a Declaration by Drs. Tovey and Lallemand under 37 CFR 1.131 establish a date of conception and diligence prior to the file date of US Patent No 7,045,281. Applicants have supplied US Patent No 7,045,281 in an IDS filed 12/17/2007. It appears that the declarations were filed in an attempt to prevent or circumvent use of US Patent No 7,045,281 as prior art against the instant claims. However, US Patent No 7,045,281 has not been used in a rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Applicant's amendments and arguments, see REMARKS (pages 16-17), filed 12/17/2007, with respect to claims 1-2, 4-34 and 70-75 have been fully considered and are persuasive. It is noted that claim 1 has been amended to incorporate the limitations of claim 3 (now cancelled) so that the cell line has been treated with an anti-mitotic and pro-apoptotic agent. The rejection of claims 1-2, 4-33 and 70-75 under 35 U.S.C. 112, first paragraph (new matter) has been withdrawn.

Claims 1-2, 4-34 and 70-75 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. **This rejection is being maintained for reasons of record in the previous Office Action, mailed 9/7/2007 and for reasons outlined below**.

Applicants submit that the present invention presents nothing new with respect to reporter gene assays because such assays are well known in the prior art, as can be seen in the prior art cited by the examiner, and particularly the Harpold patents. Applicants submit that one of ordinary skill in the art would understand that applicant was in possession of the full breadth of the claimed reporter gene assay cell lines that are the starting point of the present invention and which are treated in order to produce the claimed improved cell lines that can only be used once.

Applicants submit that the recited treatment of a cell line with an anti-mitotic and pro-apoptotic agent that can be used in order to cause the cell line to acquire the recited properties is adequately described in the specification, such that the skilled artisan would understand that applicant was in possession thereof. Applicants submit that γ-irradiation is anti-mitotic and pro-apoptotic, and that this is fully explained in the present specification at pages 35-37. Many cancer chemotherapy drugs, such as vinblastin, 5FU or cisplatin, are known to be anti-mitotic and pro-apoptotic. Applicants submit that the specific examples of anti-mitotic and pro-apoptotic agents disclosed in the present specification are a sufficient number to reasonably establish that applicant was in possession of the full scope of the claims. Applicants submit that those of ordinary skill in art could readily determine what other agents may be anti-mitotic and pro-apoptotic and, without undue experimentation (as will be discussed below), determine the concentrations and contact times that will cause the cell lines treated therewith to fall within the parameters of the present claims. Applicants submit that there is no reason to believe that any other cell line cannot be treated as disclosed in the present specification so as to attain the claimed characteristics. Applicants submit that this point is established by the experiments discussed below with respect to the enablement rejection.

Applicant's arguments filed 12/17/2007 have been fully considered but they are not persuasive. The claims are drawn to a cell line with the function of maintaining signal transduction activity for at least about 1 hour and demonstration of a loss of activity and cellular death in no more than about 30 days at a temperature above freezing. The recited function is dependent on treatment with an anti-mitotic and a pro-apoptotic agent. The effect of the agent on the cell line appears to be dependent on the length of the replication cycle of the cell since the anti-mitotic/pro-apoptotic agent is effective at the start of replication. Although Applicants argue that the skilled artisan could readily determine what other agents may be anti-mitotic and pro-apoptotic, the claims have breadth in multiple areas including cell type, cell surface protein and agent.

The specification recites that preferred cell lines are avian or mammalian including human cell lines. Applicants present examples both in the specification and in the response filed 12/17/2007 of human and mouse cell lines. The claims encompasses a very large genus of cell lines according to the specification including any cells of other vertebrates, eukaryotic or prokaryotic cells, bacterial cells plant protoplasts, fungal and yeast cells. The structural characteristics of this genus are diverse including cell surface proteins and length of the replication cycle. The claimed cell line also has breadth regarding the signal transduction activity of the cell surface protein that must be maintained for at least about 1 hour after which the cell will lose the signal transduction activity of the cell surface protein. While dependent claims further limit the cell surface protein, independent claim 1 encompasses any cell surface protein with signal transduction activity that would be maintained for at least 1 hour and then lose activity. Therefore the claims are drawn to a very large genus of possible cell lines with a large genus of cell surface proteins that must have signal transduction activity which behaves as recited.

Applicants claim and disclose several anti-mitotic /pro-apoptotic agents that have worked for the disclosed and exemplified human and mouse cells including vinblastine, 5-FU and γ-irradiation. However, as claim 1 is written, it encompasses any anti-mitotic /pro-apoptotic agents that would convey the function of cellular death on the cell lines in no more than about 30 days at a temperature above freezing.

By Applicants' own admission in Dr. Yun's Declaration (page 4), some examples of anti-mitotic /pro-apoptotic agents (phenylarsine oxide or aurintricarboxylic acid) do not work to maintain the signal transduction activity before cell death at particular doses on the cells tested. This is relevant here not as an enablement issue (how to make) but to show that the specification does not provide sufficient description of a representative number of species of the large genus of cell lines as claimed.

Claims 1-2, 4-34 and 70-75 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a mammalian cell line that has been treated with an anti-mitotic and pro-apoptotic agent that is vinblastin, 5-fluorourocil or γ-irradiation, does not reasonably provide enablement for a cell line of any other type of cell that has been treated with an anti-mitotic and pro-apoptotic agent. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. This rejection is being partially maintained and modified for reasons of record in the previous Office Action, mailed 9/7/2007 and for reasons outlined below.

Applicants submit that the starting point of the present invention is cells that have been transformed with a reporter gene construct comprising a nucleotide sequence encoding a reporter gene product operatively linked to one or more transcriptional control elements that are regulated by the signal transduction activity of a cell surface protein in response to an extracellular signal. Applicant submits that such cell lines are well known in the art, and do not form part of applicant's invention *per se*. Applicant submits that the present invention relates to an improvement in such known cell lines by which they may acquire a "one-time use" characteristic. Applicant submits that it would not entail undue experimentation to obtain cell lines within the scope of the starting materials used in the present invention, as such are well known, as is evidenced, for example, by the art cited by the examiner, particularly including the Harpold patents. Applicant submits that the improvement of the present invention is the treatment of such cell lines with an anti-mitotic /pro-apoptotic agent so that such cell lines may acquire the property of maintaining the signal transduction activity for at least about one hour while losing such signal transduction activity and undergoing cellular death in no more than about thirty days at a temperature above freezing.

Applicant submits a declaration of Dr. Michael Tovey detailing experimentation that has been conducted following the guidelines of the present specification in order to show that undue experimentation would not be involved in practicing the present invention by. Applicant submits that the experiments presented in Dr. Tovey's declaration demonstrate that a variety of human cell types (promonocytic, myeloid, T-cell lymphoma, breast adenocarcinoma) and non-human cells (mouse lymphoma), all treated with the same concentration of vinblastin and the same conditions before being cryopreserved are all capable of maintaining signal transduction activity for at least 24 hours after being thawed, as well as undergoing cellular death in no more than thirty days at a temperature above freezing. Thus, Applicant submits that the additional experiments reported in the Tovey declaration use conditions that were optimized for PIL5 cells, so as to obtain induction of apoptosis in 100% of the cell population while maintaining fully functional signal transduction for at least 24 hours after thawing. Applicant submits that when these same optimal conditions were applied to the other cell lines/types, without further experimentation, they were all found to have the properties required by the present claims. Apoptosis was induced in 100% of each of the cell populations within thirty days, and yet fully functional signal transduction was maintained for at least 24 hours after thawing.

Applicant submits that the variability indicated by the examiner does not appear to be a significant factor because operable conditions can be determined by one of ordinary skill in the art without undue experimentation. Indeed, no experimentation is needed since in every cell type tested the experimental conditions provided in the present specification were operable to obtain the properties required by the present claims. **Applicant submits that if a cell type is found that does not maintain signal transduction activity for 24 hours after thawing or which does not undergo apoptosis within thirty days, then only minimal experimentation** would be necessary to change the concentration or time of treatment with the anti-mitotic and pro-apoptotic agent and then again test the cell line to find the conditions that will cause the cell line to have the properties that fall within those required by the claims. Applicant submits that certainly, the amount of experimentation necessary is less than that which was found permissible in the *Wands* case cited by the examiner.

Dr. Tovey declares the experiments presented below demonstrate that a variety of human cell types (promonocytic, myeloid, T-cell lymphoma, breast adenocarcinoma) and non-human cells (mouse lymphoma), all treated with the same concentration of vinblastine and conditions before being cryopreserved in ampoules/vials are all capable of maintaining signal transduction activity for at least 24 hours after being thawed (and before undergoing cellular death in no more than 30 days at a temperature above freezing).

Dr. Tovey declares experimental conditions that were optimized for PIL5 cells, so as to obtain induction of apoptosis in 100% of the cell population while maintaining fully functional signal transduction for at least 24 hours after thawing vinblastin-treated cells. These same optimal conditions were then applied to the other cell lines/types without further experimentation and were found to induce apoptosis in 100% of each of the cell populations while maintaining fully functional signal transduction for at least 24 hours after thawing vinblastine treated cells.

Dr. Tovey declares trials with PIL5 cells, *a* clone of the human pro-monocytic cell line U937, transfected with the ISRE from the ISGI5 gene controlling a SV40 minimal promoter regulating the transcription of the firefly luciferase gene treated for 10 min with 1μg/ml of vinblastine. The cells were treated with serial dilutions of human interferon alpha or beta (Type I interferon) for the assay. Dr. Tovey declares trials with UIG2 cells, *a* clone of the human myeloid cell line U266R, transfected with the GAS from the IFR1 gene controlling a SV40 minimal promoter regulating the transcription of the firefly luciferase gene and treated for 10 min with 1μg/ml of vinblastine. The cells were treated with serial dilutions of human interferon gamma (Type II interferon) for the assay. Dr. Tovey declares trials with JUT4 cells*,* a clone of the human T-cell lymphoma cell Jurkat line transfected with the 5 x tandem repeat of the canonical NFKB binding site controlling a SV40 minimal promoter regulating the transcription of the fire-fly luciferase reporter gene treated for 10 min with 1μg/ml of vinblastine. The cells were treated with serial dilutions of human TNFα for the assay. Dr. Tovey declares trials with MCX cells, a clone of the human breast adenocarcinoma cell line MCF7 transfected with the promoter region of the NOXA gene controlling a SV40 minimal promoter regulating the transcription of the fire-fly luciferase reporter gene and treated for 10 min with 1μg/ml of vinblastine. The cells were treated with serial dilutions of human Toll like receptor agonist for the assay. Dr. Tovey declares trials with LM4 cells, a clone of the mouse lymphoma LI210 cell line transfected with the ISRE from the ISGI5 gene controlling a SV40 minimal promoter regulating the transcription of the fire- fly luciferase reporter gene and treated for 10 min with 1μg/ml of vinblastine. The cells were treated with serial dilutions of murine interferon alpha or beta (Type I interferon) for the assay.

Dr. Tovey presents data for each cell type and conclude that irrespective of the cell type or cell line used for treatment with vinblastin, or whether the cells are human or non-human, all cell types/lines tested (which includes a varied sampling of different cell types) using the same vinblastin treatment and cryopreservation conditions taught in the present specification were found to maintain the desired fully functional signal transduction activity in gene reporter assays for at least 24 hours after thawing. Dr. Tovey declares that there is no reason to doubt that additional further cell types would also work under the same specific vinblastin treatment conditions, which can also certainly be easily modified if needed with only routine experimentation. Dr. Tovey fully expects that most cell types/lines would maintain the desired signal activity under the same specific optimized vinblastin treatment conditions taught in the present specification, or would require at most a minimal amount of routine experimentation to adjust and optimize.

Applicant's arguments filed 12/17/2007 have been fully considered but they are not persuasive. The Declarations under 37 CFR 1.132, filed 12/17/2007 is insufficient to overcome the rejection of claims 1-2, 4-34 and 70-75 based upon 35USC 112, 1st paragraph as set forth in the last Office action because: it is not in commensurate scope with the claims.

The experiments declared by Dr. Tovey are limited to human and mouse cell lines with that have been treated with vinblastin and assays for a signal transduction activity of a limited amount of proteins. Dr. Tovey declares several examples of human and mouse cells which have been treated with vinblastin and Applicants submit that it would not require undue and excessive experimentation to determine appropriate amounts of the anti-mitotic/pro-apoptotic agent that would permit the invention to work with different kinds of cell lines. However, the cells tested were all different types of human or mouse cells. These examples do not address any other cell type (non-mammalian vertebrates such a fish, yeast, bacterial or fungal cells) for the scope as disclosed in the specification. The claims are also broad with regard to the cell surface protein with signal transduction activity that would regulate expression of a reporter gene linked to a transcription control element. Since the claimed cell line encompasses a broad genus, the cell surface protein with signal transduction activity would also be broad and diverse. Many signal transduction cascades are complex and encompass feedback loops and negative regulatory components. Since the anti-mitotic/pro-apoptotic agent to be used encompasses a genus of agents, it is not predictable how any one agent would affect any cell type beyond human or mouse cell lines so that the signal transduction activity would be maintained for at least about 1 hour and would decline after at least about 1 hour.

Although Applicants suggests that the variability previously indicated by the examiner does not appear to be a significant factor, Applicants have not addressed this issue commensurate in scope with the claims. As discussed in the previous Office action, the unpredictability in being able to make the claimed cell line is the ability to produce a cell comprising a reporter gene construct as claimed with the properties of maintaining signal transduction activity for at least about an hour and loss of activity and cellular death in no more than about 30 days. The specification also teaches that cell lines can be treated with vinblastine or 5-fluorourocil or cisplatin in a sufficient amount and for a sufficient time so that the signaling activity of the cells are maintained for at least about 1 hour but no more than about 30 days. Although the Dr. Tovey declares experiments in which treatment of human and mouse cell line with a specific concentration of vinblastin for 10 minutes is an optimal treatment for the cells studied, the specification discloses that the time of exposure to vinblastine is variable, but also that the formulation of vinblastine is important for the desired outcome. Applicants do not provide any further specific guidance regarding guidance regarding how much vinblastine or cisplatin or 5-fluorourocil should be provided to any other cell type at any other concentration. Furthermore by Applicants' own admission in Dr. Yun's Declaration (page 4), some examples of anti-mitotic /pro-apoptotic agents (phenylarsine oxide or aurintricarboxylic acid) do not work to maintain the signal transduction activity before cell death at particular doses on the cells tested. Therefore, there is at least some unpredictability for making any particular cell line in the disclosed genus with the recited properties as claimed. Applicants submits that it should not require undue experimentation to obtain cell lines within the scope of the starting materials used in the instant invention for example by the Harpold prior art references cited by the examiner. However, the Harpold references were not used to anticipate the entire genus encompassed by the claims, but instead a species of the claimed cell lines.

Although the skill in the art is high, given the nature of the invention, the scope of the claims, state of the art, unpredictability of the art and lack of sufficient guidance and working example, the skilled artisan would have to practice undue and excessive trial and error experimentation in order to practice the claimed method.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 1, 12, 21-22 and 25 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 1, 12, 21-22 and 25 under 35 U.S.C. 102(b) as being anticipated by Harpold (US 5,436,128) has been withdrawn.

Applicant’s amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 1, 12-14, 19, 21-22 and 25 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 1, 12-14, 19, 21-22 and 25 under 35 U.S.C. 102(b) as being anticipated by **Canosi et al** (1996, of record) has been withdrawn.

Applicant’s amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 1, 12-14, 17, 19, 21 and 25 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 1, 12-14, 17, 19, 21 and 25 under 35 U.S.C. 102(b) as being anticipated by **Lewis** (1995, of record) has been withdrawn.

Applicant’s amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 1, 12-13, 17-19, 21-23 and 25 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 1, 12-13, 17-19, 21-23 and 25 under 35 U.S.C. 102(b) as being anticipated by **Lamb et al** (US 5,707,803, of record) has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 1, 12, 21-22 and 24-25 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 1, 12, 21-22 and 24-25 under 35 U.S.C. 103(a) as being unpatentable over **Harpold in view of Button** (1993, of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 1, 12-15, 17-23 and 25-28 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 1, 12-15, 17-23 and 25-28 under 35 U.S.C. 103(a) as being unpatentable over **Lewis** (1995, of record) in view of **Lallemand and Lamb** (of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 29-33 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 29-33 under 35 U.S.C. 103(a) as being unpatentable over **Lewis** (1995, of record) in view of **Ahern** (1995, of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 2 and 72-73 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 2 and 72-73 under 35 U.S.C. 103(a) as being unpatentable over **Harpold (US Patent No. 5,436,128) in view of Ausubel** (of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 2 and 72-73 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 2 and 72-73 under 35 U.S.C. 103(a) as being unpatentable over **Canosi et al (of record) in view of Ausubel** (of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 2 and 72-73 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 2 and 72-73 under 35 U.S.C. 103(a) as being unpatentable over **Lewis (of record) in view of Ausubel** (of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claims 2 and 72-73 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claims 2 and 72-73 under 35 U.S.C. 103(a) as being unpatentable over **Lamb et al (of record) in view of Ausubel** (of record) has been withdrawn.

Applicant's amendments and arguments, see REMARKS (page 23), filed 12/17/2007, with respect to claim 75 have been fully considered and are persuasive. Claim 1 has been amended to include limitation of treatment with an anti-mitotic and pro-apoptotic agent to confer the recited properties. The rejection of claim 75 under 35 U.S.C. 103(a) as being unpatentable over **Canosi et al (of record) in view of Ahern (of record) in view of Ausubel** (of record) has been withdrawn.

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. MITCHELL whose telephone number is (571)272-8783. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura M. Mitchell
Examiner
3/14/2008
/Celine X Qian Ph.D./
Primary Examiner, Art Unit 1636